

CLAIMS

1. Coating device with a rotary atomizer mounted on a coating machine for mass-production coating of workpieces, with a turbine motor (5) of the atomizer driven by air or another gas, with the shaft (103) of the rotating atomizer element (4) driven by the motor being supported in the bearing unit (101) of the atomizer, with an inlet path (107) through which the gas is supplied under pressure to the turbine wheel (104) of the motor, and with an outlet path (113) through which the lower-pressure exhaust gas is led out of the bearing unit (101) and out of the rotary atomizer, characterized in that a heating device (115) is provided, with which the gas flowing through the rotary atomizer or the components of the atomizer and/or the coating machine in contact with the inlet and/or outlet paths (107, 113) of the atomizer in a heat-conductive way can be heated.

2. Coating machine according to Claim 1, characterized in that the heating device (115) heats air (A) flowing in the atomizer.

3. Coating device according to Claim 1 or 2, characterized in that the heating element of the heating device (115) is located outside of the atomizer.

4. Coating device according to one of the preceding claims, characterized in that the heating device has a heat exchanger (116) through which the supply air (A) of the turbine motor or another warm fluid and the exhaust gas of the turbine motor flow.

5. Coating device according to one of the preceding claims, characterized in that the bearing unit and/or other components of the atomizer or the coating machine contain channels that are separate from the inlet and outlet paths (107, 113) of the gas driving the turbine motor, with the medium heated by the heating device flowing through these channels.

6. Coating device according to one of the preceding claims, characterized in that the atomizer and/or the coating machine has at least one temperature sensor that controls the heating device (115).

7. Coating device according to one of the preceding claims, characterized in that at least one component of the atomizer and/or the coating machine in heat-conductive contact with the inlet and/or outlet path (107, 113) of the gas driving the turbine motor contains, e.g., an electric heating element.

8. Method for controlling the operation of a coating device with a rotary atomizer, in which a gas, particularly air, driving a turbine motor (5) of the rotary atomizer, is supplied under pressure to the turbine wheel (104) of the turbine motor through an inlet path (107) and is led out as lower-pressure exhaust gas through an outlet path (113) from the bearing unit (101) of the turbine motor and from the atomizer, characterized in that the gas flowing through the rotary atomizer or components of the atomizer and/or the coating machine in heat-conductive contact with the inlet and/or outlet paths (107, 113) of the atomizer are heated by a heating device (115).

9. Method according to Claim 8, characterized in that the drive gas is heated in front of and/or behind the turbine motor.

10. Method according to Claim 8 or 9, characterized in that the bearing air of the bearing unit of the turbine motor containing an air bearing for the shaft is heated.

11. Method according to one of Claims 8-10, characterized in that the steering air is heated, which is led through the rotary atomizer and is directed onto the sprayed coating material for setting the spray stream.

12. Method according to one of Claims 8-11, characterized in that warm air is led into the exhaust air of the turbine motor.

13. Method according to one of Claims 8-12, characterized in that the temperature of the gas flowing through the rotary atomizer or components of the atomizer and/or the coating machine in heat-conductive contact with the inlet and/or outlet paths (107, 113) of the atomizer is regulated in a closed control loop or is controlled as a function of preset desired values.